

REMARKS

Claims 1-25 are pending in the present Application. Claims 17-23, and 25 have been withdrawn. Claim 8 has been canceled. Claim 1 has been amended, and no claims have been added, leaving claims 1-6, 9-16, and 24 for consideration upon entry of the present amendment.

Claim 1 has been amended to include the limitation "in an amount of about 40 to about 90 wt% based on the total weight of the composition, wherein the graphite has average particle sizes of about 3 to about 5,000 micrometers." Support for this amendment can at least be found in Claim 8 as originally filed as well as in Paragraphs [0093] and [0094] as originally filed.

No new matter has been introduced by these amendments or new claims.

Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-6, 8-16 and 24 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent Application No. 2002/0183438 to Amerasekera et al. (Amerasekera) taken with U.S. Patent Application No. 2005/0070657 to Elkovitch et al. (Elkovitch) and U.S. Patent No. 5,591,382 to Nahass et al (Nahass). (Office Action dated 12/20/2006, page 3) Applicants respectfully traverse this rejection.

In making the rejection, the Examiner has stated that "Amerasekera and Elkovitch each qualify as prior art under another subsection of 35 U.S.C. § 102, and therefore, is not disqualified as prior art under 35 U.S.C. § 103(c)." (Office Action dated 12/20/2006, page 3) Applicants respectfully disagree.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, couple with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. In *re fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); In *Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970);

Amgen v. Chugai Pharmaceuticals Co., 97 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

As currently amended, Claim 1 is directed to a conductive composition comprising an organic polymer; a nanosized conductive filler and/or carbon fibers having an average diameter of greater than or equal to about 1000 nanometers; and graphite in an amount of about 40 to about 90 wt%, based on the total weight of the composition, wherein the graphite has average particle sizes of about 3 to about 5,000 micrometers.

Amerasekera is directed to a conductive filler comprising small carbon fibers with carbon powder and/or a fibrous non-conductive filler. (Abstract; see paragraphs [0010] and [0019]). The small carbon fibers may be either vapor grown carbon fibers (VGCF) or carbon nanotubes, or a combination of both. The VGCF and carbon nanotubes of Amerasekera are similar to the nanosized conductive fillers of the present application. Amerasekera does not teach graphite having average particle sizes of about 3 to about 5,000 nanometers.

In the first instance, Amerasekera cannot be prior art under 35 U.S.C. § 102(a). As can be seen from the attached declaration and from the Appendix A (which contains the record of invention) attached thereto, the present invention was made prior to at least December 5, 2002. Thus, the present invention was invented prior to the date of filing of Amerasekera.

It is also submitted that Amarasekera was published less than a year before the filing of the present application and is therefore not a reference under 35 U.S.C. § 102(b), but would be available as a reference under 35 U.S.C. § 102(e). The present application was filed on 30th September 2003, while the Amarasekera reference was published on December 5, 2003. Since the reference applies as a 35 U.S.C. § 102(e) reference, the obviousness rejection should have been made under 35 U.S.C. § 103(c) and not 35 U.S.C. § 103(a).

Applicants also respectfully submit that Amarasekera is unavailable as prior art. 35 U.S.C. § 103(c)(1) provides:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Both the present application and Amarasekera are under obligation of assignment to the

General Electric Company. For these reasons, Applicants submit that Amerasekera cannot be relied on as prior art for the § 103(a) rejection.

Since, as pointed out above, the Examiner has stated that “Amerasekera and Elkovitch each qualify as prior art under another subsection of 35 U.S.C. § 102”, the Applicants respectfully request the Examiner to point out which section of 35 U.S.C. § 102, Amerasekera would be available under.

Even if Amerasekera were to qualify as prior art, the graphite in the presently claimed invention is different from the graphitized or partially graphitized vapor grown carbon fibers described in Amerasekera. The graphitized vapor grown carbon fibers described in Amerasekera are cylindrical multilayered nanotubes grown from a catalyst in a carbon rich vapor environment. (see U.S. Patent No. 4,663,230 to Tennant mentioned in paragraph [0015]) The graphite described in the present application may be synthetically produced or naturally produced but has a flake morphology. (see paragraphs [0091] and [0092] of the present application) Amerasekera therefore does not teach all elements of the claimed invention.

Elkovitch teaches compositions of thermoplastic and/or thermoset polymers, a single walled nanotube composition and a nanosized conductive filler. (see Abstract) In the first instance, Elkovitch does not qualify as a reference under 103(a). Elkovitch was filed only a day prior to the present application. It did not exist as a publication prior to the date of filing of the present application. In addition, Elkovitch and the present invention were under an obligation of assignment to the same entity i.e., the General Electric Corporation at the same time, the invention was made. Thus Elkovitch cannot be used as a reference in this rejection.

The Examiner has contended that Elkovitch may be a reference under 35 U.S.C. § 102 (f). However, Elkovitch however, does not teach the use of graphite particles within the range of 3 to about 5,000 micrometers, neither does it teach the use of graphite in an amount of 40 to about 90 wt% based on the total weight of the composition. Elkovitch teaches a nanosized conductive filler having at least one dimension less than 1,000 nanometers. (see Claim 23; see also paragraph [0097] and [0098]) Therefore, not all elements of the invention are taught by Elkovitch.

Nahass teaches a polymeric composition having improved toughness and conductivity comprising carbon fibrils, at least a portion of which are in the form of aggregates. (see Abstract)

The carbon fibrils disclosed by Nahass are identical to the vapor grown carbon fibers of Amerasekera. (see Col. 3, line 44 – Col. 4, line 23) Nahass therefore does not teach the graphite claimed in the present invention.

In summary, since Amerasekera and Elkovitch do not qualify as prior art and since Nahass does not teach graphite in the form presently claimed, the Applicants believe that the Examiner has not made a case of obviousness over Amerasekera taken with Elkovitch and Nahass. Applicants therefore respectfully request a withdrawal of the obviousness rejection.

Nonstatutory Double Patenting Rejections

Claims 1-6, 8-16 and 24 stand rejected under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-40 of U.S. Publication No. 2005/0070657 (Elkovitch). Applicants thank the Examiner for pointing out the potential obviousness-type double patenting issue between the claims of the present application and those of co-pending application No. US 2005/0070657. In partial response to this provisional rejection the Applicant has amended Claim 1. In complete response, the Applicant would like to respectfully traverse this decision.

Respectfully, it is submitted that the claims of the current application and Elkovitch are patentably distinct from one another. That is, the requirements for the respective conductive compositions are different from one another.

Claim 1 of Elkovitch is distinct from the claims of the present application in that it specifies the use of an organic polymer precursor in the composition. The present invention in contrast is directed to an organic polymer not an organic polymer precursor. Elkovitch, in Claim 1, therefore utilizes different starting material in the preparation of the invention.

Claim 23 of Elkovitch is directed to an organic polymer; a single wall carbon nanotube composition and a nanosized conductive filler. The nanosized conductive fillers of Elkovitch have at least one dimension that is less than or equal to about 1,000 nanometers (see paragraph 10 and Claims 19, 37). In addition, the graphite of the presently claimed invention is present in an amount of 40 to 90 wt%, based on the total weight of the composition. Elkovitch, in contrast, does not specify a weight percent for its nanosized graphite.

Thus in summary, based upon the distinct nature of the claims for a conductive

composition between the current application and Elkovitch, the Applicant submits that the two inventions are sufficiently distinct from one another. For these reasons at least, the Applicant respectfully request a withdrawal of the double-patenting rejection and an allowance of the claimed invention.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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